

Claims:

- 1 1. A water-based, erasable marking composition comprising:
2 1 - 86% by weight water;
3 0.3 - 38% by weight pigment;
4 0 - 85% by weight glycerin; and
5 13 - 45% by weight polyurethane, wherein said polyurethane
6 has a viscosity which increases by at least a factor of 10 when said
7 polyurethane is dried from a 30% dispersion of said polyurethane in water
8 to a 65% polyurethane dispersion in water.
- 1 2. The erasable composition of claim 1, further comprising a
2 surfactant.
- 1 3. The erasable composition of claim 2, wherein said surfactant is
2 a fluorosurfactant present at less than 1% by weight.
- 1 4. The erasable composition of claim 1, further comprising 0 -
2 0.5% by weight anti-microbial preservative.
- 1 5. A water-based, erasable marking composition comprising:
2 13 - 69% by weight water;
3 5 - 15% by weight glycerin;

4 0.3 - 6% by weight pigment; and
5 26 - 42.5% by weight polyurethane, wherein said polyurethane
6 has a viscosity which increases by at least a factor of 10 when said
7 polyurethane is dried from a 30% dispersion of said polyurethane in water
8 to a 65% polyurethane dispersion in water.

1 6. The erasable composition of claim 5, further comprising a
2 surfactant.

1 7. The erasable composition of claim 6, wherein said surfactant is
2 a fluorosurfactant present at less than 1% by weight.

1 8. The erasable composition of claim 5, further comprising 0 -
2 0.5% by weight anti-microbial preservative.

1 9. A water-based, erasable marking composition comprising:

2 52% by weight water;

3 9% by weight glycerin;

4 4% by weight pigment; and

5 35% by weight polyurethane, wherein said polyurethane
6 has a viscosity which increases by at least a factor of 10 when said
7 polyurethane is dried from a 30% dispersion of said polyurethane in water
8 to a 65% polyurethane dispersion in water.

1 10. The erasable composition of claim 9, further comprising a
2 surfactant.

1 11. The erasable composition of claim 10, wherein said surfactant
2 is a fluorosurfactant present at 0.002 – 0.375% by weight.

1 12. The erasable composition of claim 9, further comprising 0.05 –
2 0.15% by weight anti-microbial preservative.

1 13. An application instrument comprising:

2 an outer body having a first end;

3 an applicator at said first end of said outer body;

4 a reservoir included within said outer body and in fluid
5 communication with said applicator; and

6 a water-based, erasable marking composition within said
7 reservoir, said water-based, erasable marking composition comprising:

8 1 - 86% by weight water;

9 0.3 - 38% by weight pigment;

10 0 - 85% by weight glycerin; and

11 13 - 45% by weight polyurethane, wherein said polyurethane

12 has a viscosity which increases by at least a factor of 10 when said
13 polyurethane is dried from a 30% dispersion of said polyurethane in water
14 to a 65% polyurethane dispersion in water.

1 14. The application instrument of claim 13, wherein said water-
2 based, erasable marking composition further comprises a surfactant.

1 15. The application instrument of claim 14, wherein said surfactant
2 is a fluorosurfactant present at less than 1% by weight.

1 16. The application instrument of claim 13, wherein said water-
2 based, erasable marking composition comprises:

3 13 - 69% by weight water;

4 5 - 15% by weight glycerin;

5 0.3 - 6% by weight pigment; and

6 26 - 42.5% by weight polyurethane, wherein said polyurethane
7 has a viscosity which increases by at least a factor of 10 when said
8 polyurethane is dried from a 30% dispersion of said polyurethane in water
9 to a 65% polyurethane dispersion in water.

1 17. The application instrument of claim 13, wherein said water-
2 based, erasable marking composition comprises:

3 52% by weight water;

4 9% by weight glycerin;
5 4% by weight pigment; and
6 35% by weight polyurethane, wherein said polyurethane
7 has a viscosity which increases by at least a factor of 10 when said
8 polyurethane is dried from a 30% dispersion of said polyurethane in water
9 to a 65% polyurethane dispersion in water.

1 18. The application instrument of claim 13, further comprising 0.05
2 - 0.15% by weight anti-microbial preservative.

1 19. The erasable marking composition of claim 1 wherein the
2 composition has an erasability of greater than 50%.

1 20. The erasable marking composition of claim 5 wherein the
2 composition has an erasability of greater than 50%.